



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AF

Appeal Brief Transmittal

In re application of: Graser

Serial No.: 09/479,363

Filed on: 01/07/00

For: **OBJECT ORIENTED APPARATUS AND METHOD FOR PROVIDING CONTEXT-BASED CLASS REPLACEMENT IN AN OBJECT ORIENTED SYSTEM**

Mail Stop APPEAL BRIEF - PATENT
Commissioner for Patents
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Sir:

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Respectfully submitted,

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Date: January 18, 2005

By: 



AF-8.1.11

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Graser Docket No.: RO999-122
Serial No.: 09/479,363 Group Art Unit: 2172
Filed: 01/07/00 Examiner: Ly, Anh
For: OBJECT ORIENTED APPARATUS AND METHOD FOR PROVIDING
CONTEXT-BASED CLASS REPLACEMENT IN AN OBJECT ORIENTED
SYSTEM

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

This appeal is taken from the examiner's rejection, set forth in the Office Action dated 08/18/04, of appellant's claims 1, 3-8, 10-15, and 17-23.. Appellant's Notice of Appeal under 37 C.F.R. § 1.191 was mailed on 11/18/04.

REAL PARTY IN INTEREST

International Business Machines Corporation is the Real Party in Interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences for this patent application.

STATUS OF CLAIMS

Claims 1-19 were originally filed in this patent application. The examiner has now provided six non-final office actions. The first three were responded to with Requests for Reconsideration (no claim amendments), and the fourth was responded to with an amendment filed on 12/02/03 that canceled claims 2, 9 and 16, that amended claims 3, 6, 10, 12, 13 and 17, and that added new claims 20-23. The fifth office action was responded to with a Request for Reconsideration filed on 05/17/04. In the pending sixth non-final office action, claims 1, 6, 12, 13, 20 and 21 were rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1, 2, 5, 7 and 13 of U.S. Patent No. 5,943,497 to Bohrer *et al.* (hereinafter "Bohrer"). Claims 1, 3-8, 10-15 and 17-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bohrer in view of U.S. Patent No. 6,405,209 to Obendorf. No claim was allowed. Claims 1, 3-8, 10-15, and 17-23 are currently pending.

STATUS OF AMENDMENTS

The only amendment filed in response to any of the six office actions is the amendment that was filed in response to the fourth office action, which was filed on 12/02/03. Therefore, the claims at issue in this appeal are the claims as amended by the amendment filed 12/02/03.

SUMMARY OF INVENTION

An object oriented mechanism allows class replacement that is based on a specified processing context by replacing existing configuration data with new configuration data within an existing object oriented program. The configuration data is preferably stored in a data structure external to the class definitions to allow modifying the classes without re-compiling the class code. The configuration data includes multiple entries, where each entry is a key-value pair. The key includes information relating to the processing context, and the value includes information relating to the class that corresponds to the key. When an instance of a class needs to be created, the context information is retrieved, a key is generated from a combination of the class information and the context information, and the context-sensitive key is used to retrieve the corresponding class configuration data from the data structure that specifies a particular class. An object that is an instance of the specified class is then created. By generating a key that is context-specific, configuration data for a class can be scoped to a particular processing context, thereby providing context-based class replacement.

ISSUES

The following issues are presented for review on this Appeal:

- 1. Whether claims 1, 6, 12, 13, 20 and 21 are unpatentable under the judicially created doctrine of obviousness-type double patenting as being obvious over Bohrer**
- 2. Whether claims 1, 3-8, 10-15 and 17-23 are unpatentable under 35 U.S.C. §103(a) over Bohrer in view of Obendorf**

GROUPING OF CLAIMS

Claims 1 and 13-15 are grouped, and stand or fall together based on claim 1. Claims 3 and 17 are grouped, and stand or fall together based on claim 3. Claims 4 and 18 are grouped, and stand or fall together based on claim 4. Claims 5 and 19 are grouped and stand or fall together based on claim 5. Claims 21-23 are grouped, and stand or fall together based on claim 21. It is appellant's intention that the patentability, *vel non*, of claims 6-8, 10-12, and 20 be considered independently, as these claims do not stand or fall with any other claim. This grouping of claims is appropriate because each set of claims includes a unique combination of limitations not found in the other sets of claims, and because the claims that are not grouped with any other claim include a unique combination of limitations not found in any of the groups.

ARGUMENT

Issue 1: Whether claims 1, 6, 12, 13, 20 and 21 are unpatentable under the judicially created doctrine of obviousness-type double patenting as being obvious over Bohrer

In the pending office action, the examiner rejected claims 1, 6, 12, 13, 20 and 21 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5, 7 and 13 of Bohrer. In the rejection, the examiner states:

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: configuration data and replacement class.

This rejection language does not satisfy the requirements of establishing a prima facie case of obviousness. The fact that the pending patent application and the issued patent have some common subject matter (*i.e.*, configuration data and replacement class) is not the proper inquiry. The proper inquiry is whether the claims of the pending patent application would have been obvious to one of ordinary skill in the art based on the cited claims in Bohrer. The examiner has made no such statement or showing, and has therefore failed to establish a prima facie case of obviousness for claims 1, 6, 12, 13, 20 and 21 under the judicially-created doctrine of obviousness-type double patenting based on Bohrer. These claims are each addressed below to show the differences between these claims and Bohrer.

Claim 1

Claim 1 recites:

1. An apparatus comprising:
 - at least one processor;
 - a memory coupled to the at least one processor;
 - class configuration data comprising a plurality of entries residing in the memory, each class configuration entry including a key-value pair, wherein the key includes information relating to a selected processing context and the value includes configuration data for a class in the selected processing context, wherein the key comprises context information appended to a class identifier; and
 - an object oriented class replacement mechanism residing in the memory and executed by the at least one processor that generates an instance of a selected class by using a key that includes context information to access the appropriate entry in the class configuration data.

Claim 1 contains many limitations that are not taught or rendered obvious by Bohrer. Bohrer does not teach, suggest, or otherwise render obvious the limitation that each class configuration entry includes a key-value pair, “wherein the key includes information relating to a selected processing context and the value includes configuration data for a class in the selected processing context, wherein the key comprises context information appended to a class identifier”, as recited in claim 1. Furthermore, Bohrer does not teach or suggest an object oriented class replacement mechanism that uses “a key that includes context information to access the appropriate entry in the class configuration data”, as recited in claim 1. Because Bohrer does not teach, suggest, or otherwise render these limitations obvious, claim 1 is allowable over Bohrer. Appellant respectfully requests that the examiner’s rejection of claim 1 under the judicially-created doctrine of obviousness-type double patenting be reversed.

Claim 13

Claim 13 is grouped with claim 1, and stands or falls according to the allowability of claim 1.

Claim 6

Claim 6 recites step (1): “retrieving configuration data corresponding to the class in a selected processing context using a corresponding key that includes information relating to the selected processing context, wherein the key comprises context information appended to a class identifier”. Bohrer does not teach or suggest retrieving configuration data using a corresponding key that comprises context information appended to a class identifier. For this reason, claim 6 is allowable over Bohrer. Appellant respectfully requests that the examiner’s rejection of claim 6 under the judicially-created doctrine of obviousness-type double patenting be reversed.

Claim 12

Claim 12 recites six distinct method steps. None of steps (1), (2), (3) and (5) are taught or suggested by Bohrer. As a result, claim 12 is allowable over Bohrer. Appellant respectfully requests that the examiner’s rejection of claim 12 under the judicially-created doctrine of obviousness-type double patenting be reversed.

Claim 20

The arguments above with respect to claim 1 apply equally to claim 20, and are incorporated in this section by reference. Claim 20 includes many limitations not taught or suggested by Bohrer, including the limitations addressed above in claim 1 regarding the key-value pair, the key generator mechanism, and the accessing of the

appropriate entry in the class configuration data using the key. Because Bohrer does not teach, suggest, or render obvious the unique combination of features in claim 20, claim 20 is clearly allowable over Bohrer. Appellant respectfully requests that the examiner's rejection of claim 20 under the judicially-created doctrine of obviousness-type double patenting be reversed.

Claim 21

The arguments above with respect to claim 1 apply equally to claim 21, and are incorporated in this section by reference. Claim 21 includes many limitations not taught or suggested by Bohrer, including the limitations addressed above in claim 1 regarding the key and the key generator mechanism. Because Bohrer does not teach, suggest, or render obvious the unique combination of features in claim 21, claim 21 is clearly allowable over Bohrer. Appellant respectfully requests that the examiner's rejection of claim 21 under the judicially-created doctrine of obviousness-type double patenting be reversed.

**Issue 2: Whether claims 1, 3-8, 10-15 and 17-23 are unpatentable under
35 U.S.C. §103(a) over Bohrer in view of Obendorf**

The examiner rejected claims 1, 3-8, 10-15 and 17-23 as being unpatentable over Bohrer in view of Obendorf. Each of these claims is addressed below.

Claim 1

Claim 1 recites:

1. An apparatus comprising:
 - at least one processor;
 - a memory coupled to the at least one processor;
 - class configuration data comprising a plurality of entries residing in the memory, each class configuration entry including a key-value pair, wherein the key includes information relating to a selected processing context and the value includes configuration data for a class in the selected processing context, wherein the key comprises context information appended to a class identifier; and
 - an object oriented class replacement mechanism residing in the memory and executed by the at least one processor that generates an instance of a selected class by using a key that includes context information to access the appropriate entry in the class configuration data.

In rejecting claim 1, the examiner states that the key value pair in Bohrer “is the factory class and configuration data and class and the processing of the context of the class, col. 4, lines 50-59 and col. 9 lines 32-62.” This rejection does not make sense. A key-value pair has two features, a key and a corresponding value. In the rejection language cited above, the examiner states the key-value is 1) factory class; 2) configuration data; 3) configuration class; and 4) processing of the context of the class. The examiner has thus vaguely mapped four limitations on the key-value pair in claim 1, which can only, by definition, have two features. Then the examiner addresses the wherein clause in this limitation, which reads: “wherein the key comprises context

information appended to a class identifier”. The examiner reads the container ID at col. 8 lines 9-15 of Bohrer on this limitation. While it is unclear which of the four limitations cited by the examiner specifically read on the key in the key-value pair in claim 1, the introduction of yet a fifth and different limitation (container ID) as allegedly reading on the key in the claim shows a fatal flaw in the examiner’s logic. The container ID in Bohrer cannot read on the key in claim 1 because the container ID is not part of a key-value pair. Furthermore, the container ID in Bohrer does not comprise context information appended to a class identifier as expressly recited in claim 1. For these reasons, claim 1 is allowable over the combination of Bohrer and Obendorf.

The examiner has shown no teaching or feature in Bohrer or Obendorf that read on the context information in claim 1, or that read on the class identifier in claim 1. For this reason, the examiner has failed to establish a prima facie case of obviousness for claim 1 under 35 U.S.C. §103(a).

Claim 1 also recites an object oriented class replacement mechanism that uses “a key that includes context information to access the appropriate entry in the class configuration data.” In rejecting the object oriented class replacement mechanism of claim 1, the examiner cites to “instance of class” in Bohrer at col. 3 lines 5-10 and col. 7 lines 34-38. The cited language at col. 7 lines 34-38 relates to class tokens. A class token in Bohrer does not include context information. In addition, the examiner’s mapping of a class token on the key in claim 1 further shows inconsistency in the rejection, because the class token was not cited in rejecting the key-value pair. The class token is thus a sixth limitation that is introduced in the rejection that supposedly reads on the key in the key-value pairs. The examiner’s rejection of claim 1 is fatally flawed because of the claim limitations that are not addressed in the rejection, because of the vague and inconsistent mapping of limitations in Bohrer on the limitations of claim 1, and because Bohrer does not teach many of the limitations in claim 1, as detailed above. As a result, claim 1 is allowable over Bohrer.

In the rejection of claim 1, the examiner states:

Bohrer does not clearly teaches [sic] updating or replacing the data store as a factory object in a relational database or storing object in a relational database to be instantiated.

This is a strange sentence, because none of the limitations the examiner is referring to as supposedly lacking in Bohrer appear in claim 1. Claim 1 has no factory object and has no relational database. For this reason, the examiner's reliance upon Obendorf is in error, because the examiner is attempting to use Obendorf for limitations that do not appear in claim 1.

The examiner also goes through a very long explanation of Obendorf, citing many of the features of Obendorf on the claim limitations that were already addressed as being allegedly taught by Bohrer. This inclusion of Obendorf is confusing for two reasons. First, the language the examiner uses (cited above) does not address limitations in claim 1, so the reliance upon Obendorf is error. Second, the reading of Obendorf on limitations in claim 1 that were allegedly taught by Bohrer makes the examiner's rejection unclear. For example, for the limitation "the class configuration data comprising a plurality of entries residing in the memory, each class configuration entry including a key-value pair" in claim 1, the examiner reads the reference table in FIG. 3B of Obendorf as allegedly reading on this limitation. Yet this limitation was already addressed as being allegedly taught by Bohrer. As a result, the appellant is left to try to guess which one the examiner is really relying upon. It appears that the inclusion of the detailed mapping of Obendorf upon the limitations in claim 1 that were already addressed by Bohrer is a simply cut-and-paste error by the examiner, incorporating arguments from a previous office action that are not appropriate in this context. Appellant respectfully asserts that the detailed combination of limitations in claim 1 is allowable over Bohrer alone, or over Bohrer in combination with Obendorf. Appellant respectfully requests that the examiner's rejection of claim 1 under 35 U.S.C. §103(a) be reversed.

Claims 13-15

Claims 13-15 are grouped with claim 1, and stand or fall according to the allowability of claim 1.

Claim 3

The arguments above with respect to claim 1 apply equally to claim 3, and are incorporated in this section by reference. Claim 3 recites:

3. The apparatus of claim 1 wherein the class identifier comprises a class token that comprises a text string.

In rejecting claim 3, the examiner cites to the class token in Bohrer at col. 7 lines 34-38, col. 9 lines 35-40, and item 302 in Fig. 4. For the examiner's rejection to have merit, which means that the class token of Bohrer reads on the class identifier in claim 3, the class token in Bohrer would be appended to context information to make the key in claim 1. The class tokens in Bohrer are text strings, they are not appended to context information to make keys in key-value pairs as recited in claim 1, upon which claim 3 depends. For this reason, claim 3 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 3 under 35 U.S.C. §103(a) be reversed.

Claim 17

Claim 17 is grouped with claim 3, and stands and falls according to the allowability of claim 3.

Claim 4

The arguments above with respect to claim 1 apply equally to claim 4, and are incorporated in this section by reference. Claim 4 recites:

4. The apparatus of claim 1 further comprising a factory object that generates an instance of the selected class by accessing the appropriate entry in the class configuration data using the key.

In rejecting claim 4, the examiner states that Bohrer teaches these limitations, citing col. 4 lines 50-58 and col. 10 lines 10-28 of Bohrer. Appellant admits that Bohrer teaches a factory object that generates an instance of a class by accessing an entry in class configuration data. Note, however, that the access is done using a class token, which is a string identifier for a class. The class token in Bohrer does not read on the key in claim 4, because the key in claim 4 relates back to the key in claim 1, which comprises context information appended to a class identifier. Nowhere does Bohrer teach or suggest a class token that comprises context information appended to a class identifier. For this reason, claim 4 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 4 under 35 U.S.C. §103(a) be reversed.

Claim 18

Claim 18 is grouped with claim 4, and stands and falls according to the allowability of claim 4.

Claim 5

The arguments above with respect to claim 1 apply equally to claim 5, and are incorporated in this section by reference. Claim 5 recites:

5. The apparatus of claim 1 further comprising a key generator mechanism that generates the key from a class identifier and from the context information.

In rejecting claim 5, the examiner states that Bohrer teaches the key generator mechanism in claim 5, citing fig. 5, abstract, col. 4 lines 1-10, col. 6 lines 57-67, and col. 7 lines 1-21. None of the cited portions of Bohrer teach or suggest a key generator mechanism that generates a key from a class identifier and from context information. For this reason, claim 5 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 5 under 35 U.S.C. §103(a) be reversed.

Claim 19

Claim 19 is grouped with claim 5, and stands and falls according to the allowability of claim 5.

Claim 6

The arguments above with respect to claim 1 apply equally to claim 6, and are incorporated in this section by reference. Claim 6 recites:

6. A method for creating an instance of an object oriented class, the method comprising the steps of:

- (1) retrieving configuration data corresponding to the class in a selected processing context using a corresponding key that includes information relating to the selected processing context, wherein the key comprises context information appended to a class identifier; and
- (2) instantiating the instance of the class using the retrieved configuration data.

In rejecting claim 6, the examiner states that Bohrer teaches limitation (1), citing fig. 6 and col. 98 lines 15-32. It appears that the examiner's reference to col. 98 is a

typographical error, and that the reference should be to col. 9. Neither of the cited figures and none of the text in col. 9 teaches the retrieval of configuration data corresponding to the class in a selected processing context using a corresponding key that include information relating to the selected processing context, *wherein the key comprises context information appended to a class identifier*. Nowhere has the examiner stated what teaching in Bohrer reads on the context information, and what teaching in Bohrer reads on the key that includes context information appended to a class identifier. The class tokens in Bohrer are text strings that represent names of classes, and do not read on the key in claim 6 that includes context information appended to a class identifier. For these reasons, claim 6 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 6 under 35 U.S.C. §103(a) be reversed.

Claim 7

The arguments above with respect to claims 1 and 6 apply equally to claim 7, and are incorporated in this section by reference. Claim 7 recites:

7. The method of claim 6 further comprising the step of storing the configuration data with the corresponding key.

In rejecting claim 7, the examiner cites to Bohrer at col. 5 lines 42-55, col. 7 lines 55-67 and col. 8 lines 1-5. While Bohrer does discuss configuration data being stored, it does not teach or suggest the storing of configuration data with the corresponding key recited in claim 7. Claim 7 depends on claim 6, which recites that the key comprises context information appended to a class identifier. Nowhere does Bohrer nor Obendorf teach or suggest a key that comprises context information appended to a class identifier that is stored with corresponding configuration data. For this reason, claim 7 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 7 under 35 U.S.C. §103(a) be reversed.

Claim 8

The arguments above with respect to claims 1, 6 and 7 apply equally to claim 8, and are incorporated in this section by reference. Claim 8 recites:

8. The method of claim 7 wherein the step of storing the configuration data with the corresponding key comprises the step of generating a key from a class identifier and from the context information.

In rejecting claim 8, the examiner cites to Bohrer at col. 6 lines 57-67 and col. 7 lines 1-21. Neither of these cited portions of Bohrer teach or suggest the step of generating a key from a class identifier and from the context information. For this reason, claim 8 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 8 under 35 U.S.C. §103(a) be reversed.

Claim 10

The arguments above with respect to claims 1 and 6 apply equally to claim 10, and are incorporated in this section by reference. Claim 10 recites:

10. The method of claim 6 wherein the class identifier comprises a class token that comprises a text string.

In rejecting claim 10, the examiner cites to Bohrer at col. 7 lines 34-38, col. 9 lines 35-40, and item 302 in fig. 4. While Bohrer does teach a text string class token, this text string class token in Bohrer does not read on the class identifier in claim 10. Claim 10 depends on claim 6, which recites that the key comprises context information appended to a class identifier. Thus, we see from the limitations in claim 10 that the key in claim 6 comprises context information appended to a text string. Nowhere does Bohrer show any key that comprises context information appended to a text string. The class tokens in Bohrer are text strings, pure and simple, without any context information appended. For this reason,

claim 10 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 10 under 35 U.S.C. §103(a) be reversed.

Claim 11

The arguments above with respect to claims 1 and 6 apply equally to claim 11, and are incorporated in this section by reference. Claim 11 recites:

11. The method of claim 6 further comprising the step of generating the key from a class identifier and from the context information.

In rejecting claim 11, the examiner cites to Bohrer at fig. 5, abstract, col. 4 lines 1-10, col. 6 lines 57-67, and col. 7 lines 10-21. While Bohrer does teach a text string class token, there is no teaching in Bohrer regarding how this token is generated. Because Bohrer has no teaching regarding the generation of a key from a class identifier and from context information, claim 11 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 11 under 35 U.S.C. §103(a) be reversed.

Claim 12

The arguments above with respect to claims 1, 5, 6, 7 and 11 apply equally to claim 12, and are incorporated in this section by reference. Claim 12 recites:

12. A method for replacing an existing class with a replacement class in a distributed object environment, the method comprising the steps of:
 (1) generating a key that comprises information relating to a current processing context appended to a class identifier for the existing class;
 (2) storing configuration data for the existing class using the key;

- (3) replacing the configuration data for the existing class with configuration data for the replacement class while maintaining the same key;
- (4) initiating the creation of an instance of the replacement class;
- (5) retrieving the configuration data for the replacement class using the generated key; and
- (6) creating an instance of the replacement class according to the retrieved configuration data for the replacement class.

In rejecting claim 12, the examiner states that Bohrer teaches generating a key in step (1), citing the container ID in Bohrer. As states above with respect to claim 1, the container ID does not read on the key in claim 12 that comprises “information relating to a current processing context appended to a class identifier for the existing class”. For this reason alone, claim 12 is allowable over the combination of Bohrer and Obendorf.

The key in claim 12 is generated in step (1) and used in steps (2), (3), and (5). Because the key in claim 12 is not taught in Obendorf, none of steps (1), (2), (3) and (5) are taught by Obendorf. As a result, claim 12 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner’s rejection of claim 12 under 35 U.S.C. §103(a) be reversed.

Claim 20

The arguments above with respect to claims 1, 3-6, 8 and 12 apply equally to claim 20, and are incorporated in this section by reference. Claim 20 recites:

- 20. An apparatus comprising:
 - at least one processor;
 - a memory coupled to the at least one processor;
 - class configuration data comprising a plurality of entries residing in the memory, each class configuration entry including a key-value pair, wherein the key includes information relating to a selected processing context and the value includes configuration data for a class in the selected processing context;

a key generator mechanism residing in the memory and executed by the at least one processor that generates the key from the class identifier and from the context information, wherein the key comprises the context information appended to a text string class identifier; and

an object oriented class replacement mechanism residing in the memory and executed by the at least one processor that generates an instance of a selected class by using the key to access the appropriate entry in the class configuration data, the class replacement mechanism comprising a factory object that generates an instance of the selected class by accessing the appropriate entry in the class configuration data using the key.

Neither Bohrer nor Obendorf teach the key-value pair recited in claim 20 for the reasons given above with respect to claim 1. Neither teach a key generator mechanism for the reasons given above with respect to claim 5. Neither teach that the key comprises context information appended to a text string class identifier for the reasons given above with respect to claims 1 and 3. For these reasons, claim 20 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 20 under 35 U.S.C. §103(a) be reversed.

Claim 21

The arguments above with respect to claims 1, 3-6, 8, 12 and 20 apply equally to claim 21, and are incorporated in this section by reference. Claim 21 recites:

21. A program product comprising:

an object oriented class replacement mechanism that generates an instance of a selected class by using a key that includes information relating to a selected processing context to access an appropriate entry in class configuration data stored external to the class, wherein the key comprises context information appended to a text string class identifier, the class replacement mechanism comprising a factory object that generates an instance of the selected class by accessing the appropriate entry in the class configuration data using the key, the class replacement mechanism further comprising a key generator mechanism that generates

the key from the text string class identifier and from the context information; and
signal bearing media bearing the object oriented class replacement mechanism.

Neither Bohrer nor Obendorf teach the key-value pair recited in claim 21 for the reasons given above with respect to claim 1. Neither teach a key generator mechanism for the reasons given above with respect to claim 5. Neither teach that the key comprises context information appended to a text string class identifier for the reasons given above with respect to claims 1 and 3. For these reasons, claim 21 is allowable over the combination of Bohrer and Obendorf. Appellant respectfully requests that the examiner's rejection of claim 21 under 35 U.S.C. §103(a) be reversed.

Claims 22 and 23

Claims 22 and 23 are grouped with claim 21, and stand or fall based on the allowability of claim 21.

General Comments

Appellant's attorney is intimately familiar with the teachings of Bohrer, because he drafted Bohrer. The examiner's position that Bohrer somehow renders obvious the detailed limitations in the pending claims is unsupportable given the express teachings of Bohrer.

The concept of a key is central to all of the pending claims. The concept of a processing context is also central to all of the pending claims. The examiner's rejections are so vague and confusing that it is impossible to discern what teaching in the cited art reads specifically upon the key in appellant's claims, and what teaching in the cited art reads specifically upon the processing context in appellant's claims. For the rejections to be so unclear, vague and confusing upon such central features of the claims shows that the examiner has failed to establish a prima facie case of obviousness for all of the pending claims.

This appeal is brought after the examiner has issued six non-final office actions. In each of the second through sixth office actions, the examiner states that the applicant's arguments have been considered, but are moot in view of new grounds of rejection. Appellant has amended the claims only once in response to these six office actions. The art that the examiner cites in the sixth office action is art that was available when the case was initially examined. It is fundamentally unfair for the examiner to get six or more bites at the apple when appellant only gets two. In preparing to respond to the fifth office action, appellant's attorney placed several telephone calls to the examiner and to the examiner's supervisor more than two weeks before the response was due in an attempt to schedule a telephone interview with the examiner and the examiner's supervisor. The examiner and the examiner's supervisor delayed responding to the request until just a few days before the response was due, then refused the request for a telephone interview because there was supposedly insufficient time to get the file from central files two days

before the deadline. The examiner and the examiner's supervisor have been less than helpful in the prosecution of this patent application. Appellant hopes the Board will send a clear message to the examiner and the examiner's supervisor that such examination practices are not in accordance with established PTO standards and procedure, and definitely do not contribute to a high level of customer satisfaction.

CONCLUSION

Claims 1, 3-8, 10-15, and 17-23 are addressed in this Appeal. For the numerous reasons articulated above, appellant maintains that the rejection of claims 1, 3-8, 10-15, and 17-23 is erroneous.

Appellant respectfully submits that this Appeal Brief fully responds to, and successfully contravenes, every ground of rejection and respectfully requests that the final rejection be reversed and that all claims in the subject patent application be found allowable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Derek P. Martin", is written over a horizontal line.

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APPENDIX - CLAIMS FINALLY REJECTED

- 1 1. An apparatus comprising:
 - 2 at least one processor;
 - 3 a memory coupled to the at least one processor;
 - 4 class configuration data comprising a plurality of entries residing in the memory,
 - 5 each class configuration entry including a key-value pair, wherein the key includes
 - 6 information relating to a selected processing context and the value includes configuration
 - 7 data for a class in the selected processing context, wherein the key comprises context
 - 8 information appended to a class identifier; and
 - 9 an object oriented class replacement mechanism residing in the memory and
 - 10 executed by the at least one processor that generates an instance of a selected class by
 - 11 using a key that includes context information to access the appropriate entry in the class
 - 12 configuration data.
- 1 2. (Canceled)
- 1 3. The apparatus of claim 1 wherein the class identifier comprises a class token that
2 comprises a text string.
- 1 4. The apparatus of claim 1 further comprising a factory object that generates an instance
2 of the selected class by accessing the appropriate entry in the class configuration data
3 using the key.
- 1 5. The apparatus of claim 1 further comprising a key generator mechanism that generates
2 the key from a class identifier and from the context information.

1 6. A method for creating an instance of an object oriented class, the method comprising
2 the steps of:

3 (1) retrieving configuration data corresponding to the class in a selected
4 processing context using a corresponding key that includes information relating to the
5 selected processing context, wherein the key comprises context information appended to
6 a class identifier; and

7 (2) instantiating the instance of the class using the retrieved configuration data.

1 7. The method of claim 6 further comprising the step of storing the configuration data
2 with the corresponding key.

1 8. The method of claim 7 wherein the step of storing the configuration data with the
2 corresponding key comprises the step of generating a key from a class identifier and from
3 the context information.

1 9. (Canceled)

1 10. The method of claim 6 wherein the class identifier comprises a class token that
2 comprises a text string.

1 11. The method of claim 6 further comprising the step of generating the key from a class
2 identifier and from the context information.

1 12. A method for replacing an existing class with a replacement class in a distributed
2 object environment, the method comprising the steps of:
3 (1) generating a key that comprises information relating to a current processing
4 context appended to a class identifier for the existing class;
5 (2) storing configuration data for the existing class using the key;
6 (3) replacing the configuration data for the existing class with configuration data
7 for the replacement class while maintaining the same key;
8 (4) initiating the creation of an instance of the replacement class;
9 (5) retrieving the configuration data for the replacement class using the generated
10 key; and
11 (6) creating an instance of the replacement class according to the retrieved
12 configuration data for the replacement class.

- 1 13. A program product comprising:
2 an object oriented class replacement mechanism that generates an instance of a
3 selected class by using a key that includes information relating to a selected processing
4 context to access an appropriate entry in class configuration data stored external to the
5 class, wherein the key comprises context information appended to a class identifier; and
6 signal bearing media bearing the object oriented class replacement mechanism.
- 1 14. The program product of claim 13 wherein said signal bearing media comprises
2 recordable media.
- 1 15. The program product of claim 13 wherein said signal bearing media comprises
2 transmission media.
- 1 16. (Canceled)
- 1 17. The program product of claim [16] 13 wherein the class identifier comprises a class
2 token that comprises a text string.
- 1 18. The program product of claim 13 further comprising a factory object that generates
2 an instance of the selected class by accessing the appropriate entry in the class
3 configuration data using the key.
- 1 19. The program product of claim 13 further comprising a key generator mechanism that
2 generates the key from a class identifier and from the context information.

1 20. An apparatus comprising:
2 at least one processor;
3 a memory coupled to the at least one processor;
4 class configuration data comprising a plurality of entries residing in the memory,
5 each class configuration entry including a key-value pair, wherein the key includes
6 information relating to a selected processing context and the value includes configuration
7 data for a class in the selected processing context;
8 a key generator mechanism residing in the memory and executed by the at least
9 one processor that generates the key from the class identifier and from the context
10 information, wherein the key comprises the context information appended to a text string
11 class identifier; and
12 an object oriented class replacement mechanism residing in the memory and
13 executed by the at least one processor that generates an instance of a selected class by
14 using the key to access the appropriate entry in the class configuration data, the class
15 replacement mechanism comprising a factory object that generates an instance of the
16 selected class by accessing the appropriate entry in the class configuration data using the
17 key.

1 21. A program product comprising:
2 an object oriented class replacement mechanism that generates an instance of a
3 selected class by using a key that includes information relating to a selected processing
4 context to access an appropriate entry in class configuration data stored external to the
5 class, wherein the key comprises context information appended to a text string class
6 identifier, the class replacement mechanism comprising a factory object that generates an
7 instance of the selected class by accessing the appropriate entry in the class configuration
8 data using the key, the class replacement mechanism further comprising a key generator
9 mechanism that generates the key from the text string class identifier and from the
10 context information; and
11 signal bearing media bearing the object oriented class replacement mechanism.

1 22. The program product of claim 21 wherein the signal bearing media comprises
2 recordable media.

1 23. The program product of claim 21 wherein the signal bearing media comprises
2 transmission media.